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## NOTICE OF ALLOWANCE AND FEE(S) DUE

34137 7590 07/25/2008

Pepper Hamilton LLP  
400 Berwyn Park  
899 Cassatt Road  
Berwyn, PA 19312-1183

EXAMINER

KINSLEY WHITE, NICOLE ERIN

ART UNIT

PAPER NUMBER

1648

DATE MAILED: 07/25/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/535,326      | 02/02/2006  | David B Weiner       | 130694.05901        | 5726             |

TITLE OF INVENTION: GENETIC CONSTRUCTS AND COMPOSITIONS COMPRISING RRE AND CTE AND USES THEREOF

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO           | \$1440        | \$300               | \$0                  | \$1740           | 10/27/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to:** Mail **Mail Stop ISSUE FEE**  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

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| (Depositor's name) |
| (Signature)        |
| (Date)             |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|            |            |                |              |      |
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| 10/535,326 | 02/02/2006 | David B Weiner | 130694.05901 | 5726 |
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| EXAMINER                  | ART UNIT | CLASS-SUBCLASS |
|---------------------------|----------|----------------|
| KINSEY WHITE, NICOLE ERIN | 1648     | 424-184100     |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_  
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 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
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- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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KINSEY WHITE, NICOLE ERIN

ART UNIT

PAPER NUMBER

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Pepper Hamilton LLP  
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## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 357 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 357 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

## Application No.

10/535,326

## Examiner

NICOLE KINSEY WHITE

## Applicant(s)

WEINER ET AL.

## Art Unit

1648

### - The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/23/2008.
2. ☒ The allowed claim(s) is/are 15-20 and 24-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 5/18/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark DeLuca on July 21, 2008.

The application has been amended as follows:

In the claims:

1-14. (canceled)

15. A method of inducing an immune response against an immunogen in an individual comprising the step of administering to said individual either:

a) a composition comprising a genetic construct that comprises

i) coding sequence for HIV-1 Rev, and

ii) coding sequence for said immunogen, wherein coding sequence for said immunogen comprises

1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and

2) at least one CTE; or

b) a composition comprising at least two nucleic acid molecules:

i) at least one nucleic acid molecule comprises a coding sequence for HIV-1 Rev, and

ii) at least one nucleic acid molecule comprises a coding sequence for an immunogen, wherein coding sequence for said immunogen comprises

1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and

2) at least one CTE.

16. The method of claim 15 comprising the step of administering to said individual a composition comprising a genetic construct that comprises

i) coding sequence for HIV-1 Rev, and

ii) coding sequence for said immunogen, wherein coding sequence for said immunogen comprises

1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and

2) at least one CTE.

17. The method of claim 15 comprising the step of administering to said individual a composition comprising at least two nucleic acid molecules:

i) at least one nucleic acid molecule comprises a coding sequence for HIV-1 Rev, and

ii) at least one nucleic acid molecule comprises a coding sequence for an immunogen, wherein coding sequence for said immunogen comprises

1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and

2) at least one CTE.

18. A method of delivering a protein to an individual comprising the step of administering to said individual either:

a) a composition comprising a genetic construct that comprises

i) coding sequence for HIV-1 Rev, and

ii) coding sequence for said protein, wherein coding sequence for said protein comprises

1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and

2) at least one CTE; or

b) a composition comprising at least two nucleic acid molecules:

i) at least one nucleic acid molecule comprises a coding sequence for HIV-1 Rev, and

ii) at least one nucleic acid molecule comprises a coding sequence for said protein, wherein coding sequence for said protein comprises

1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and

2) at least one CTE.

19. The method of claim 18 comprising the step of administering to said individual a composition comprising a genetic construct that comprises

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- i) coding sequence for HIV-1 Rev, and
- ii) coding sequence for said protein, wherein coding sequence for said protein comprises
  - 1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and
  - 2) at least one CTE.

20. The method of claim 18 comprising the step of administering to said individual a composition comprising at least two nucleic acid molecules:

- i) at least one nucleic acid molecule comprises a coding sequence for HIV-1 Rev, and
- ii) at least one nucleic acid molecule comprises a coding sequence for said protein, wherein coding sequence for said protein comprises
  - 1) at least a portion of coding sequence for an HIV structural protein that includes an RRE and
  - 2) at least one CTE.

21-23. (canceled)

24. The method of claim 16 wherein the genetic construct is a DNA molecule.

25. The method of claim 24 wherein the genetic construct is a plasmid.

26. The method of claim 16 wherein the immunogen is a fusion protein comprising an HIV structural protein and at least one CTE.

27. The method of claim 16 wherein the immunogen is a fusion protein comprising at least a portion of an HIV structural protein and a non-HIV portion.



28. The method of claim 16 wherein the immunogen is a fusion protein comprising at least a portion of an HIV structural protein and an immunogenic non-HIV portion.

29. The method of claim 16 wherein the genetic construct comprises 1-5 CTEs.

30. The method of claim 17 wherein the at least two nucleic acid molecules are DNA molecules.

31. The method of claim 30 wherein the DNA molecules are plasmids.

32. The method of claim 17 wherein the immunogen is a fusion protein comprising an HIV structural protein and at least one CTE.

33. The method of claim 17 wherein the immunogen is a fusion protein comprising at least a portion of an HIV structural protein and a non-HIV portion.

34. The method of claim 17 wherein the immunogen is a fusion protein comprising at least a portion of an HIV structural protein and an immunogenic non-HIV portion.

35. The method of claim 17 wherein the coding sequence for the immunogen comprises 1-5 CTEs.

36. The method of claim 19 wherein the genetic construct is a DNA molecule.

37. The method of claim 36 wherein the genetic construct is a plasmid.

38. The method of claim 19 wherein the protein is an HIV structural protein that comprises at least one CTE.

39. The method of claim 19 wherein the protein is a fusion protein comprising at least a portion of an HIV structural protein and a non-HIV portion.

40. The method of claim 19 wherein the protein is a fusion protein comprising at least a portion of an HIV structural protein and an immunogenic non-HIV portion.

41. The method of claim 19 wherein the genetic construct comprises 1-5 CTEs.

42. The method of claim 20 wherein the at least two nucleic acid molecules are DNA molecules.

43. The method of claim 42 wherein the DNA molecules are plasmids.

44. The method of claim 20 wherein the protein is a fusion protein comprising an HIV structural protein and at least one CTE.

45. The method of claim 20 wherein the protein is a fusion protein comprising at least a portion of an HIV structural protein and a non-HIV portion.

46. The method of claim 20 wherein the protein is a fusion protein comprising at least a portion of an HIV structural protein and an immunogenic non-HIV portion.

47. The method of claim 20 wherein the coding sequence for the immunogen comprises 1-5 CTEs.

### ***Drawings***

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Applicants will provide a new Figure 1. In order to avoid

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abandonment of the application, applicant must make these above agreed upon drawing changes.

***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zolotukhin et al. (Journal of Virology, 1994, 68(12):7944-7952) discloses a genetic construct that comprises: a) a coding sequence for HIV-1 Rev, and b) a coding sequence for a desired protein, wherein coding sequence for said desired protein comprises i) at least a portion of coding sequence for an HIV structural protein that includes an RRE and ii) at least one CTE (see Figure 1, clone NL43.S). NL43.S was constructed by inserting SRV-I-CTE into the wildtype HIV molecular clone NL4-3.

Zolotukhin et al., however, does not teach or suggest using such construct in a method for inducing an immune response against an antigen/immunogen as presently claimed.

Thus, the claimed invention is free of the prior art and allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE KINSEY WHITE whose telephone number is (571)272-9943. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on (571) 272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicole Kinsey White, PhD/  
Examiner, Art Unit 1648

/Bruce Campell/

Supervisory Patent Examiner, Art Unit 1648

**Application Number****Application/Control No.**

10/535,326

**Applicant(s)/Patent under  
Reexamination**

WEINER ET AL.

**Examiner**

NICOLE KINSEY WHITE

**Art Unit**

1648